TESTIMONY OF

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Statement of Ramona Trovato
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Good Morning. My name is Ramona Trovato and I am the Director of the Office of Children's Health Protection at the US Environmental Protection Agency. Thank you for inviting me here today to discuss our response to environmentally-related health problems. It is deeply distressing to know that a number of children in this community have developed leukemia. Even one child with leukemia is one too many.

The Environmental Protection Agency's mission is to protect human health and safeguard the environment. We protect human health by limiting peoples' exposure to contaminants in the air we breathe, the water we drink, and the food we eat. The Environmental Protection Agency works through the states to protect public health. About half of the Environmental Protection Agency's budget is sent directly to the states for their use in environmental and public health protection. In fiscal year 2001, the Environmental Protection Agency is providing $3.5 billion to the states for all environment programs. This same year, Nevada received more than $6 million in clean water state revolving funds and $7.8 million for drinking water state revolving funds.

The protection of human health requires a partnership at the local, state and federal level. I would like to begin by addressing the government's response to environmentally-related health problems through some past examples, and then talk about how we can address some of the issues facing your community. Given the unique roles of each of the different agencies, it is essential for environmental officials at all levels of government to work with their public health counterparts to address the environmental health needs of our citizens.

How does the Environmental Protection Agency respond to cancer clusters?

We currently address potential cancer clusters through an informal agreement among government agencies. Through this partnership, each agency brings their particular expertise to the investigation as needed.

The current process is as follows:

- State public health departments perform the initial phases of cancer cluster investigations according to defined protocols.
- If further investigation is warranted, the Centers for Disease Control and Prevention may be

asked to provide technical assistance to states on a case by case basis.

- Additional assistance may be provided by the Agency for Toxic Substances and Disease Registry and the National Cancer Institute.
- If findings indicate a suspected environmental linkage, the National Institute of Environmental Health Sciences, and/or the Environmental Protection Agency may be consulted.

Through its participation in this partnership of federal, state, and local agencies, the Environmental Protection Agency has a long history of dealing with environmentally-related health problems in communities. I'd like to give you a specific example of how the Environmental Protection Agency has partnered with other agencies to address a real problem.

Case Study: Community Confronts Childhood Cancer

In 1996, due to public concerns about high rates of certain types of cancer among children in the Dover Township/Toms River area of New Jersey, a study was conducted by the Agency for Toxic Substances and Disease Registry and the New Jersey Department of Health and Senior Services. They found a previously unidentified contaminant in two drinking water wells. These agencies then asked for the Environmental Protection Agency to identify the contaminant. Through a cooperative effort led by the Environmental Protection Agency's Las Vegas laboratory, the contaminant mixture, called SAN trimer, was identified. This contaminant was found in low part-per-billion levels in the two wells already known to have been impacted by a local Superfund site. The existing treatment system at these wells was not effective at removing the contaminant. Because this area is part of a Superfund site, the Environmental Protection Agency directed Union Carbide, the site's potentially responsible party, to install a carbon treatment system on the two contaminated wells to supplement the existing treatment. The new carbon treatment system removes the contaminant to non-detectable levels. The Environmental Protection Agency, with the National Institute of Environmental Health Sciences, is overseeing long-term chronic studies to determine if this contaminant causes cancer.

How does the Environmental Protection Agency respond to Superfund sites?

Working under the mandate of the Superfund legislation, the Environmental Protection Agency works closely with the Agency for Toxic Substances and Disease Registry to perform the necessary activities to respond to environmental hazards and associated health threats in communities. The Agency for Toxic Substances and Disease Registry performs health assessments around Superfund sites, as well as in communities upon request. The Agency for Toxic Substances and Disease Registry's public health assessment process determines those potentially exposed and makes recommendations to reduce exposure and mitigate potential health outcomes. The

Environmental Protection Agency responds to these recommendations and intervenes where possible to stop exposures. Communities can petition the Agency for Toxic Substances and Disease Registry for a community health assessment and can petition the Environmental Protection Agency to request a preliminary assessment. If the preliminary assessment indicates a problem, then the Environmental Protection Agency can take immediate action and begin the process of cleanup.

Case Study: Citizen Complained of Strange Odor-- Methyl Parathion (Pesticide)

In 1994, a resident of Lorain County, Ohio, was worried about a strange odor in his home. He called the local state agriculture department to find out what it was and what to do about it. The citizen had recently had his home sprayed to eliminate cockroaches and other pests. State sampling revealed the presence of methyl parathion in his home. Methyl parathion is a highly potent pesticide used on cotton and food crops. It was registered only for outdoor use, not for indoor use. The state agricultural representative turned to the Environmental Protection Agency, who investigated the illegal indoor application of methyl parathion and found an unlicensed applicator had been spraying inside homes and distributing bottles of this pesticide to homeowners. With help from the media and churches, citizens were alerted and people who had their homes treated were asked to come forward and have their homes tested for methyl parathion. The Environmental Protection Agency's Superfund program, with the Agency for Toxic Substances and Disease Registry, provided $21 million and expertise to decontaminate and restore 233 homes in Lorain County. Similar incidents turned up in Michigan, Mississippi, Louisiana, Tennessee, Illinois, Arkansas, and Alabama. After contaminating hundreds of homes in six states, the individuals responsible for the problem were identified, prosecuted and convicted.

In these cases, the Environmental Protection Agency and the Agency for Toxic Substances and Disease Registry issued a joint public health advisory about the problem, produced public outreach and educational material, and coordinated a federal response. The two agencies also worked together on procedures for testing the presence of methyl parathion residues in homes and in the urine of residents, developed criteria for relocation of residents and procedures for cleanup of contaminated homes. The Agency for Toxic Substances and Disease Registry is still following the exposed children to determine residual health problems.

On a final note, the Environmental Protection Agency cancelled the use of methyl parathion on many food crops because it was found to present acute dietary risks, especially in children.

How does the Environmental Protection Agency respond to waterborne illness?

The Environmental Protection Agency also responds to cases of illness that are believed to be associated with contaminated drinking water. The Environmental Protection Agency works through a formal agreement with other agencies to resolve the problem that caused the illness. The state health department responds first and if they need assistance, they call on the Centers for Disease Control and Prevention. The Centers for Disease Control and Prevention may then request consultation or participation by the Environmental Protection Agency in detecting, monitoring, sample testing, and providing engineering assistance for water supply pathways or water treatment plants.

Drinking Water Infrastructure: Meeting the needs of small communities

The Environmental Protection Agency also helps communities address public health threats through the Drinking Water State Revolving Loan Fund, established to provide states with a continuing source of financing for drinking water infrastructure projects. Last year, the Environmental Protection Agency provided more than $880 million to states to finance the costs of infrastructure improvements. The program places a particular emphasis on the needs of small systems that serve 10,000 or fewer residents. Congress required that at least 15 percent of the funds be provided to small systems.

Case Study: Cryptosporidium–A waterborne intestinal parasite.

In 1993, hospitals and schools in Milwaukee, Wisconsin began reporting widespread absenteeism among employees and students due to gastrointestinal illness. The medical community and local health departments, together with the Centers for Disease Control and Prevention recognized that this outbreak was too widespread for a food-borne illness. The Milwaukee public water system was contacted and high levels of turbidity were identified in the drinking water. These high levels were estimated to have lasted for 16 days before the problem was identified and corrected. It was later estimated that during the outbreak, *Cryptosporidium* levels in treated water may have exceeded 100 oocytes per 100 liters. During that time, an estimated 400,000 individuals in Milwaukee became ill from *Cryptosporidium* and at least 50 cryptosporidiosis-associated deaths were reported.

Scientists and water treatment engineers from the Environmental Protection Agency and the Wisconsin Department of Natural Resources provided assistance by evaluating and correcting problems with the treatment plant. Together the team identified that the problem arose from a change in treatment practices, lack of familiarity with these new practices, unusually high levels of *Cryptosporidium* in the source water, and delays in correcting the problem when it first occurred. Together with local, state and federal government agencies, experts restored the quality of the drinking water and introduced additional safeguards to help ensure the future safety of drinking

water for Milwaukee residents.

What else are federal agencies doing to address environmental health concerns?

Since 1997, the Environmental Protection Agency, the Department of Health and Human Services, the Department of Housing and Urban Development, and many other federal agencies have joined together to focus on environmental health threats to children. The interagency group first identified those diseases and disorders that affect children's health and may be associated with an environmental contaminant. The diseases and disorders selected were: asthma; developmental disorders, including lead poisoning; and childhood cancer. Asthma affects about five million children and is the leading cause of hospitalization in children. Developmental disorders are the leading cause of lifelong disability. Childhood cancer is the leading cause of disease-related mortality in children ages 1 to 14. Each year, more than 8,000 cases of childhood cancer are diagnosed.

The specific causes and confluence of factors that contribute to asthma, developmental disorders, and childhood cancer are generally unknown. Therefore, the decision was made to focus on research to help us better understand the influences, mechanisms and interactions of environmental factors that contribute to childhood disease. Where we have sufficient knowledge to act, we have developed strategies to address environmental health concerns. The national asthma strategy was launched in January 1999; the national lead strategy was released in 2000; and the Environmental Protection Agency and the Department of Health and Human Services have jointly funded research centers to investigate children's environmental health concerns. (An additional center is funded by the Environmental Protection Agency). Five of the nine centers conduct research related to asthma; the remaining four conduct research on development disorders. Also, the National Cancer Institute is conducting research into childhood cancer and developing a national registry of all children with cancer.

Asthma Strategy

There is an epidemic of asthma in the United States. Nearly 1 in 13 school-aged children has asthma. Asthma is one of the leading causes of school absenteeism, accounting for more than 10 million missed school days each year. Asthma is the leading cause of hospitalization for children. Asthma symptoms that are not severe enough to require a visit to the emergency room can still prevent a child from living a fully active life.

The Environmental Protection Agency and the Department of Health and Human Services developed a strategy that focuses on research and public health preventive programs. $24 million was provided in FY 2000 to expand the Environmental Protection Agency's research and public information programs to address indoor and outdoor asthma triggers. This effort is closely coordinated with the Department of Health and Human Services program which has committed

$128 million to address asthma. We've just begun to work with state environmental and health departments to address this epidemic.

Lead Strategy

Another collaborative effort on behalf of the federal government is the federal strategy to eliminate lead paint hazards in homes where children under age six live. Childhood lead poisoning is entirely preventable, yet today it remains a serious environmental health risk facing children. Lead is highly toxic to young children and can cause reduced intelligence, impaired hearing, and behavioral difficulties, and at higher levels can harm a child's internal organs. In the United States, almost one million children under the age of six have toxic levels of lead in their bodies. The strategy attempts to decrease this number to virtually zero in ten years. It coordinates measures in many federal departments and agencies aimed at preventing lead poisoning by:

- Acting before children are poisoned by eliminating and preventing residential lead paint hazards;
- Identifying and caring for children already poisoned;
- Conducting research to drive down remediation costs; and
- Continuing surveillance and monitoring programs.

The Department of Housing and Urban Development provides grants to cities and states to address lead paint hazards in low-income housing.

Longitudinal Cohort Study

Last year, Congress enacted the Child Health Act of 2000 that authorizes the National Institute for Child Health and Human Development to conduct a longitudinal cohort study to examine the impact of environmental pollutants on children. This long term study will evaluate the link between environmental factors and developmental disorders, from conception through early adulthood. It will help the federal government understand how the environment, family, and society interact with the genetic makeup of the developing fetus and child. The goal is to identify specific areas where prevention, intervention, and treatment will make a difference for America's children. As the Framingham study provided us much of what we know about heart disease, this study could be the watershed in children's environmental health protection. It will require the dedicated and determined effort of all our partners in the environmental and health communities to complete this effort.

How can EPA help?

EPA has scientific and technical experts throughout the country experienced in environmental monitoring, sampling, laboratory analyses, modeling, remediation and emergency response. We can work closely with the citizens of Fallon, the Agency for Toxic Substances and Disease Registry, the Centers for Disease Control and Prevention, and the State of Nevada to

conduct environmental assessments. Our assessment activities could include environmental testing, surveying industrial, mining, and waste disposal activities in and around Fallon, searching records to understand historical uses of the area and inspecting potential release sites.

Moreover, EPA has more than 40 hot lines and websites, that provide assistance on a variety of topics, from acid rain to safe drinking water. In addition, the EPA has a number of websites that provide information for professionals and families regarding a wide variety of environmental topics including pesticides and children's environmental health.

In addition, the Agency for Toxic Substances and Disease Registry and the Environmental Protection Agency jointly fund the Pediatric Environmental Health Specialty Units in each of the 10 regions. The pediatric units provide a clinical referral resource for health care providers and parents. Health care professionals diagnose and evaluate health threats associated with exposure to hazardous substances. In addition, children can be seen at these units by health care professionals. These units serve an important role in the health care community due to their expertise in recognizing environmental health problems and treating children with these problems. The closest site to Fallon, NV is located in San Francisco at the University of California. This pediatric unit can be reached at (415) 206-4320.

Conclusions

Thank you for allowing me to address the Committee and the community of Fallon. I am so sorry that your children are suffering. I hope that together we can make a difference. I have a few suggestions:

- Replicate the waterborne disease response model, which I mentioned earlier, to address other environmental health problems.

- Bolster the state and local public health infrastructures to monitor and respond to environmental health threats and put in place preventive health programs that alert us to problem areas that are likely to occur and to take the appropriate actions before communities suffer.

- Strengthen the partnerships among environment and health agencies at federal, state, and local levels.

- Establish a national health tracking system for chronic diseases such as asthma, birth defects, cancer and developmental disorders, to ensure a rapid response to emerging environmental related health concerns.

- Conduct the national longitudinal cohort study on environmental factors affecting child health.

Children are our future and we should do everything in our power to protect them.